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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/640,609	08/13/2003	Satoshi Nakayama	B208-757 DIV	8724

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EXAMINER	
MOE, AUNG SOE	
ART UNIT	**PAPER NUMBER**
2618	

DATE MAILED: 11/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/640,609	NAKAYAMA ET AL.	
	Examiner	Art Unit	
	Aung S. Moe	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12 and 14-18* is/are rejected.

7)☒ Claim(s) *13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/009,101.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 6-10, 12, and 14-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Matsui et al. (U.S. 5,329,361).

Regarding claim 1, Matsui '361 discloses an image pickup apparatus (Fig. 1) comprising: a memory which stores brightness of an object picked-up by an image pickup device (i.e., noted from the Figs. 1, 3, 9, 10 and 11 that the controller 10 of a video camera is capable of memorizing the brightness of an object, thus, the memory is considered an inherent feature of the controller 10. In addition, the Table 1 of the microcomputer 10 as discussed in col. 19, also show the capacity of storing the brightness data of the image picked-up by the camera; see col. 9, lines 60+);

a control device (i.e., Fig. 1, the element 10) which changes a mode of extraction (i.e., as shown in Figs. 2-17, noted that the signal within the areas α/β and the region X/Y is extracted for the switching/changing modes; Also noted the Indoor/Outdoor modes of operation as discussed in Figs. 15 and 16) of an image signal, regarded as an achromatic signal (i.e., noted the use of color signal such as Rcont and Bcont), output from said image pickup device, based on a result

of comparison with a current brightness and the stored brightness (i.e., noted the comparison as shown in steps 7 and 108 of Figs. 3, 10 and 11; also see col. 10, lines 15+, col. 13, lines 60, and col. 22, lines 25+ for changing/switching the modes based on the comparison result); and control white balance based on the extracted image signal (i.e., As shown in Fig. 1, the control 10 controls the white balance circuit 6 base on the signal extracted within the areas α/β and the region X/Y as shown in Figs. 2, 4-8 and 15) .

Regarding claim 2, Matsui '361 discloses wherein said brightness is stored in said memory before turning off a power supply (i.e., as shown in Fig. 3, 10 and 11, the brightness is memorized in the computer 10 after the power supply is turned on, thus, it means that the brightness values stored in the computer 10 is considered "before turning off a power supply" as claimed).

Regarding claim 3, Matsui '361 discloses further comprising: a recording device that records the image signal controlled by said control device (i.e., as shown in Fig. 1, the video camera produce the video signal captured by the CCD 3, and this video signal must be recorded for the further used. In view of this, the use of "recorder" in the video camera as shown in Fig. 1 is considered inherent feature of the video camera); wherein said brightness is stored in said memory in response that a recording of the image signal is started or stopped (i.e., as shown in fig. 3, 10 and 11, the memorizing steps for the brightness values is started when the camera is turned on to captured the images and the white balance corrected outputted from the camera is further recorded, thus, the brightness stored in the memory of the computer 10 is considered in response to the recording/capturing of the image signals is stared as claimed).

Regarding claim 4, Matsui '361 discloses wherein said control device changes a mode to extend an extracting range to extract the achromatic image signal in case that difference between the current brightness and the stored brightness is more than a predetermined value (i.e., as shown in Figs. 7, 8, 10 and 11, the extracting range α is extended to extract chromatic image signals, such as b-1, b-3, and r-1, r-3 if the difference between the present brightness and a brightness of the previous is more than a recognition level/predetermined values; see col. 13, line 60- col. 14, lines 25).

Regarding claim 5, Matsui '361 discloses wherein said control device changes a mode to narrow an extracting range to extract the achromatic image signal in case that difference between the current brightness and the stored brightness is less than a predetermined value (i.e., as shown in Figs. 9 and 10 that when the difference of the brightness values of current and previous is less than a predetermined values as shown in steps 7 and 108, the controller 10 changes the camera to a telescope mode to narrow the variable region as shown in Fig. 5, respectively. Also, see col. 12, lines 64+, col. 13, lines 1-68 and col. 14, lines 35+ of Matsui '361 show the changes of telescope mode by inputting the zoom information at the steps 2-1 and 103 based on the result of the steps 7 and 108).

Regarding claim 6, Matsui '361 discloses an image pickup apparatus (Fig. 1) comprising: an image pickup device which picks up an image from an object (i.e., noted the CCD sensor 3 as shown in Fig. 1); a signal processing circuit (i.e., noted the signal processing circuit 5 as shown in Fig. 1) that produces a luminance signal and a color signal from the image pickup signal of said image pickup device (i.e., noted the luminance Y signal and color RGB signals produced by the processing circuit 5 as shown in Fig. 1);

a memory which stores previous brightness of an object (i.e., noted from the Figs. 1, 3, 9, 10 and 11 that the controller 10 of a video camera is capable of memorizing the brightness of an object, thus, the memory is considered an inherent feature of the controller 10. In addition, the Table 1 of the microcomputer 10 as discussed in col. 19, also show the capacity of storing the brightness data of the image picked-up by the camera; see col. 9, lines 60+) before being in the image pickup status and holds it even if power supply of the image pickup apparatus is turned off (noted from Figs. 3, 9, 10 and 11 that the brightness values are memorized in the microcomputer 10 at the initial operation of the image capturing process and after the power is turned on, and moreover, the TABLE 1 as discussed in col. 19 is also stored in the microcomputer 10, thus, this clearly implied that the brightness will be stored in the memory of the microcomputer 10 before being in the image pickup status and theses brightness values will be stored even if the power of the camera is turned off); and

a control device (i.e., Microcomputer 10) which determines light source on the basis of brightness stored by said memory and the current brightness (i.e., noted that based on the brightness comparison of the stored and current values as shown in steps 7 and 108 of Figs. 3, 10 and 11, the control device 10 determines the light sources of the image data, such as sunshine, electric bulb, florescent lamp, indoor/outdoor as discussed in TABLE 1; also see col. 10, lines 15+, col. 13, lines 60, and col. 22, lines 25+) and controls white balance of the color signal produced by said signal processing circuit (i.e., As shown in Fig. 1, the control 10 controls the white balance circuit 6 by producing the Rcont/Bcont signals).

Regarding claim 7, Matsui '361 discloses wherein said brightness of said object stored before being in the image pickup status is stored before the previous recording is stopped (i.e., as

shown in Figs. 3, 9, 10 and 11, the brightness values are stored/memorized in the microcomputer 10 during an initial operation after the power switch is turned on, thus, this clearly implied that the brightness is stored/memorized in the microcomputer 10 before the recording is stopped when the camera is turned off).

Regarding claim 8, Matsui '361 discloses wherein said brightness of said object stored before being in the image pickup status is recorded before the previous power supply is turned off (i.e., as shown in Figs. 3, 9, 10 and 11, the brightness values are stored/memorized in the microcomputer 10 during an initial operation after the power switch is turned on, thus, this clearly implied that the brightness is stored/memorized in the microcomputer 10 before the camera is turned off as claimed).

Regarding claim 9, Matsui '361 discloses wherein said control device determines light source on the basis the brightness stored by said memory and the current brightness along turning on power supply (i.e., as shown in Figs. 3, 9, 10 and 11, the microcomputer 10 determines the light source based on the brightness memorized in the microcomputer 10, e.g., noted the brightness values from the TABLE and the current brightness received after the power of the camera is turned on) and controls white balance of the color signal produced by said signal processing circuit in response to the determination (i.e., noted the Rcont/Bcont signals are provided by the microcontroller 10 to the white balancing circuit 6 in response to the brightness values determining steps as shown in Figs. 3, 9, 10 and 11).

Regarding claim 10, Matsui '361 discloses further comprising: recording device which records the image signal produced from the output of said signal processing circuit (i.e., as

shown in Fig. 1, the video camera produce the video signal captured by the CCD 3, and this video signal must be recorded for the further used. In view of this, the use of "recorder" in the video camera as shown in Fig. 1 is considered inherent feature of the video camera), wherein said brightness is stored in said memory in response that a recording of the image signal is started or stopped (i.e., as shown in fig. 3, 10 and 11, the memorizing steps for the brightness values is started when the camera is turned on to captured the images and the white balance corrected outputted from the camera is further recorded, thus, the brightness stored in the memory of the computer 10 is considered in response to the recording/capturing of the image signals is stared as claimed).

Regarding claim 12, Matsui '361 discloses wherein an iris position, a gain of said image pickup device (i.e., noted the information provided by the elements 12 and 19 to the microcomputer 10 as shown in Fig. 1), an image pickup time (i.e., it is noted the converged time or a fixed time of the brightness is provided to the microcomputer 10 is considered as "an image pickup time", since such values are derived form the image captured by the CCD sensor 3 during the image pickup process), brightness of the object in a white balance state produced by said signal processing circuit is stored in said memory as brightness of the object which is the image pickup status (i.e., as shown in Figs. 3, 10 and 11, the brightness values of the captured object in a particular white balance state, e.g., steps 7 and 108 of Figs. 3, 10 and 11, produced by the signal processing circuit 5 is determined to be changed, then the brightness of the object is memorized by the microcomputer at steps 3 and 104 as shown in Figs. 3, 10 and 11).

Regarding claim 14, Matsui '361 discloses wherein said white balance control device changes a white extracting range for producing a white balance control signal to the determined

light source (i.e., as shown in Figs. 2, 4-8 and 15, the controller 10 changes the white extracting range such as the variable area α/β and the region X/Y so that the signals are extracted from the range indicated by the variable/change areas α/β and the region X/Y/Z in order to generate white balance control signals).

Regarding claim 15, Matsui '361 discloses wherein said control device changes a mode to extend an extracting range to extract an achromatic image signal in case that difference between the current brightness and the stored brightness is more than a predetermined value (i.e., as shown in Figs. 7, 8, 10 and 11, the extracting range α is extended to extract chromatic image signals, such as b-1, b-3, and r-1, r-3 if the difference between the present brightness and a brightness of the previous is more than a recognition level/predetermined values; see col. 13, line 60- col. 14, lines 25).

Regarding claim 16, Matsui '361 discloses wherein said control device changes a mode to narrow an extracting range to extract the achromatic image signal in case that difference between the current brightness and the stored brightness is less than a predetermined value (i.e., as shown in Figs. 9 and 10 that when the difference of the brightness values of current and previous is less than a predetermined values as shown in steps 7 and 108, the controller 10 changes the camera to a telescope mode to narrow the variable region as shown in Fig. 5, respectively. Also, see col. 12, lines 64+, col. 13, lines 1-68 and col. 14, lines 35+ of Matsui '361 show the changes of telescope mode by inputting the zoom information at the steps 2-1 and 103 based on the result of the steps 7 and 108).

Regarding claim 17, Matsui '361 discloses an image processing method for processing an image picked-up by an image pickup device (Fig. 1) comprising: storing brightness of an object picked-up by an image pickup device (i.e., noted from the Figs. 1, 3, 9, 10 and 11 that the controller 10 of a video camera is capable of memorizing/storing the brightness of an object. In addition, the Table 1 of the microcomputer 10 as discussed in col. 19, also show the capacity of storing the brightness data of the image picked-up by the camera; see col. 9, lines 60+);

changing a mode of extraction of an image signal (i.e., as shown in Figs. 2-17, noted that the signal within the areas α/β and the region X/Y is extracted for the switching/changing modes; Also noted the Indoor/Outdoor modes of operation as discussed in Figs. 15 and 16), regarded as an achromatic signal (i.e., noted the R and B signals as shown in Figs. 2 and 4-8), output from said image pickup device (i.e., the CCD sensor 3) based on a result of comparison with a current brightness and the stored brightness (i.e., noted the comparison as shown in steps 7 and 108 of Figs. 3, 10 and 11; also see col. 10, lines 15+, col. 13, lines 60, and col. 22, lines 25+ for changing/switching the modes based on the comparison result); and controlling white balance based on the extracted image signal (i.e., As shown in Fig. 1, the control 10 controls the white balance circuit 6 base on the signal extracted within the areas α/β and the region X/Y as shown in Figs. 2, 4-8 and 15).

Regarding claim 18, an image processing method for processing an image picked-up by an image pickup device comprising:

picking-up an image from an object (i.e., noted the CCD sensor 3 is use for capturing image); producing a luminance signal and a color signal from the image pickup signal of said

image pickup device (i.e., noted the luminance signal Y and the color signals RGB produced by the image sensor 3 and processing circuit 5 as shown in Fig. 1);

storing the previous brightness of object (i.e., noted from the Figs. 1, 3, 9, 10 and 11 that the controller 10 of a video camera is capable of memorizing/storing the brightness of an object. In addition, the Table 1 of the microcomputer 10 as discussed in col. 19, also show the capacity of storing the brightness data of the image picked-up by the camera; see col. 9, lines 60+) before being in the image pickup status and holding it even if power supply of the image pickup apparatus is turned off (noted from Figs. 3, 9, 10 and 11 that the brightness values are memorized in the microcomputer 10 at the initial operation of the image capturing process and after the power is turned on, and moreover, the TABLE 1 as discussed in col. 19 is also stored in the microcomputer 10, thus, this clearly implied that the brightness will be stored in the memory of the microcomputer 10 before being in the image pickup status and theses brightness values will be stored even if the power of the camera is turned off); and

determining light source on the basis of said stored brightness and an information about current brightness (i.e., noted that based on the brightness comparison of the stored and current values as shown in steps 7 and 108 of Figs. 3, 10 and 11, the control device 10 determines the light sources of the image data, such as sunshine, electric bulb, florescent lamp, indoor/outdoor as discussed in TABLE 1; also see col. 10, lines 15+, col. 13, lines 60, and col. 22, lines 25+) and controlling white balance of the color signal produced by said signal processing circuit in response to its determination (i.e., As shown in Fig. 1, the control 10 controls the white balance circuit 6 by producing the Rcont/Bcont signals based on the brightness determining steps as shown in Figs. 3, 10 and 11).

3. Claims 6 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Takei (U.S. 5,831,672).

Regarding claim 6, Takei '672 discloses image pickup apparatus (Fig. 7) comprising: an image pickup device (i.e., Image sensor 1) which picks up an image from an object; a signal processing circuit (i.e., Processing circuits 2 and 5) that produces a luminance signal (YH/YL) and a color signal (i.e., R, B, R-Y and B-Y) from the image pickup signal of said image pickup device (1); a memory which stores previous brightness of an object before being in the image pickup status and holds it even if power supply of the image pickup apparatus is turned off (noted from Fig. 18 that the brightness values such as YHn provided to the memory 33 is stored in the memory 33 before the end of the subroutine during the initial white balance control operation before being in the image pickup status, thus, this clearly implied that the brightness stored in the memory 33 during the initial white balance control process will be held in the memory 33 even after the power of the camera is turned off); and

a control device (34) which determines light source (i.e., Outdoor/Indoor light source) on the basis of brightness stored by said memory (33) and the current brightness (i.e., noted that if the current luminance level comparison is not similar to either for a high luminance level for outdoor condition with a high color temperature or a low luminance level for indoor condition with a low color temperature as previously stored in the memory 33, then the control device 34 determined the light source, such as Outdoor/Indoor, in order to select a proper a white extracting range area such as the *AREA 1 & 2* as shown in Figs. 14 and 20B; see col. 10, lines 55+, col. 11, lines 40+ and col. 13, lines 45+) and controls white balance of the color signal

produced by said signal processing circuit (i.e., noted the white balance control signals provided by the control 34 to the control circuits 3 and 4 of the color signal produced by the processing circuit 2).

Regarding claim 11, Takei '672 discloses wherein the luminance signal produced by said signal processing circuit is stored in said memory as brightness of the object which is in the image pickup status (i.e., noted from Figs. 7 and 8 that the Luminance signals YH produced by the processing circuit 2 is stored in the memory 33 as brightness of the object which is in the image capture status).

Allowable Subject Matter

4. Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5, 267,026 5,555,022 6,522,353 6,108,037

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aung S. Moe whose telephone number is 571-272-7314. The examiner can normally be reached on Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aung S. Moe
Primary Examiner
Art Unit 2618

A. Moe
November 13, 2006